ABSTRACT

Novel cationic associative polyurethanes and their use as thickeners

The invention relates to novel amphiphilic cationic associative polyurethanes of formula (I):

$$R\text{-}X\text{-}(P)_n\text{-}[L\text{-}(Y)_m]_r\text{-}L'\text{-}(P')_p\text{-}X'\text{-}R' \qquad (I)$$

in which:

R and R′, which are identical or different, represent a hydrophobic group or a hydrogen atom;

X and X′, which are identical or different, represent a group comprising an amine functional group which may or may not carry a hydrophobic group or the L» group;

L, L′ and L», which are identical or different, represent a group derived from a diisocyanate;

P and P′, which are identical or different, represent a group comprising an amine functional group which may or may not carry a hydrophobic group;

Y represents a hydrophilic group;

r is an integer between 1 and 100, preferably between 1 and 50 and in particular between 1 and 25,

n, m and p have values, each independently of the others, between 0 and 1000;

the molecule comprising at least one protonated or quaternized amine functional group and at least one hydrophobic group.

The invention also relates to the use of these polyurethanes as thickeners or gelling agents in cosmetic compositions for topical application.